QP
356
.15
J68

THE JOURNAL

OF

COMPARATIVE NEUROLOGY

FOUNDED BY C. L. HERRICK, 1891

EDITORIAL BOARD

W. MAXWELL COWAN, Managing Editor
Washington University School of Medicine
Saint Louis, Missouri

JAY B. ANGEVINE, JR.
University of Arizona

THEODOR W. BLACKSTAD
University of Aarhus
Denmark

DAVID BODIAN
Johns Hopkins University

MILTON W. BRIGHTMAN
National Institutes of Health

RICHARD P. BUNGE
Washington University

MALCOLM B. CARPENTER
Columbia University

CLEMENT A. FOX
Wayne State University

R. W. GUILLERY
University of Wisconsin

KARL M. KNIGGE
University of Rochester

WALLE J. H. NAUTA
Massachusetts Institute
of Technology

SANFORD PALAY
Harvard Medical School

JERZY E. ROSE
University of Wisconsin

RICHARD L. SIDMAN
Harvard Medical School

J. SZENTÁGOTHAI
Semmelweis University
Hungary

DAVID G. WHITLOCK
University of Colorado

VOLUME 147

JANUARY — FEBRUARY 1973

PUBLISHED BY

THE WISTAR INSTITUTE OF ANATOMY AND BIOLOGY

PHILADELPHIA, PA.

COPYRIGHT © 1973 BY
THE WISTAR INSTITUTE PRESS

All rights reserved

Contents

No. 1 JANUARY 1, 1973

MAXWELL MLONYENI. The Number of Purkinje Cells and Inferior Olivary Neurones in the Cat 1

A. J. ROCKEL AND E. G. JONES. The Neuronal Organization of the Inferior Colliculus of the Adult Cat. I. The Central Nucleus 11

A. J. ROCKEL AND E. G. JONES. Observations on the Fine Structure of the Central Nucleus of the Inferior Colliculus of the Cat 61

E. G. JONES AND A. J. ROCKEL. Observations on Complex Vesicles, Neurofilamentous Hyperplasia and Increased Electron Density during Terminal Degeneration in the Inferior Colliculus 93

PAUL WITKOVSKY, H. PHILIP ZEIGLER AND RAE SILVER. The Nucleus Basalis of the Pigeon: A Single-unit Analysis .. 119

ROLAND A. GIOLLI AND JAMES E. POPE. The Mode of Innervation of the Dorsal Lateral Geniculate Nucleus and the Pulvinar of the Rabbit by Axons Arising from the Visual Cortex 129

No. 2 JANUARY 15, 1973

A. HJORTH-SIMONSEN. Some Intrinsic Connections of the Hippocampus in the Rat: An Experimental Analysis 145

J. H. KAAS, R. W. GUILLERY AND J. M. ALLMAN. Discontinuities in the Dorsal Lateral Geniculate Nucleus Corresponding to the Optic Disc: A Comparative Study 163

G. RAISMAN. An Ultrastructural Study of the Effects of Hypophysectomy on the Supraoptic Nucleus of the Rat 181

NORMAN L. STROMINGER. The Origins, Course and Distribution of the Dorsal and Intermediate Acoustic Striae in the Rhesus Monkey 209

V. S. CAVINESS, JR. AND R. L. SIDMAN. Retrohippocampal, Hippocampal and Related Structures of the Forebrain in the Reeler Mutant Mouse 235

WILLIAM W. SCHLAEPFER AND FAY K. MYERS. Relationship of Myelin Internode Elongation and Growth in the Rat Sural Nerve 255

NOBORU MIZUNO, KAORI MOCHIZUKI, CHIHIRO AKIMOTO, RYOTARO MATSUSHIMA AND YASUHISA NAKAMURA. Rubrobulbar Projections in the Rabbit. A Light and Electron Microscopic Study 267

ROBERT D. BACSIK AND NORMAN L. STROMINGER. Cytoarchitecture of the Human Anteroventral Cochlear Nucleus .. 281

No. 3 FEBRUARY 1, 1973

LYNN A. ROGERS AND W. MAXWELL COWAN. The Development of the Mesencephalic Nucleus of the Trigeminal Nerve in the Chick 291

HENRY J. RALSTON, III AND KAO LIANG CHOW. Synaptic Reorganization in the Degenerating Lateral Geniculate Nucleus of the Rabbit 321

ADOLPH I. COHEN. An Ultrastructural Analysis of the Photoreceptors of the Squid and Their Synaptic Connections. I. Photoreceptive and Non-Synaptic Regions of the Retina 351

ADOLPH I. COHEN. An Ultrastructural Analysis of the Photoreceptors of the Squid and Their Synaptic Connections. II. Intraretinal Synapses and Plexus 379

ADOLPH I. COHEN. An Ultrastructural Analysis of the Photoreceptors of the Squid and Their Synaptic Connections. III. Photoreceptor Terminations in the Optic Lobes 399

No. 4 FEBRUARY 15, 1973

T. Myrick Walsh and Ford F. Ebner. Distribution of Cerebellar and Somatic Lemniscal Projections in the Ventral Nuclear Complex of the Virginia Opossum 427

Robert Y. Foos and Walter Miyamasu. Synaptic Analysis of Inner Plexiform Layer in Human Retina 447

Jennifer S. Lund. Organization of Neurons in the Visual Cortex Area 17, of the Monkey (*Macaca mulatta*) 455

Arthur D. Loewy. Transneuronal Changes in the Gracile Nucleus 497

Noboru Mizuno, Kaori Mochizuki, Chihiro Akimoto, Ryotaro Matsushima and Kazuo Sasaki. Projections from the Parietal Cortex to the Brain Stem Nuclei in the Cat, with Special Reference to the Parietal Cerebrocerebellar System 511

Pasko Rakic. Kinetics of Proliferation and Latency between Final Cell Division and Onset of Differentiation of Cerebellar Stellate and Basket Neurons 523

A. P. Hopkins and E. H. Lambert. Age Changes in Conduction Velocity of Unmyelinated Fibers 547

Jack E. Hubbard and Vincenzo Di Carlo. Fluorescence Histochemistry of Monoamine-containing Cell Bodies in the Brain Stem of the Squirrel Monkey (*Saimiri sciureus*). I. The Locus Caeruleus 553

Index to Volume 147 567